

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Hiroshi Kajiyama et al.

Group Art Unit: 1771

Serial No.: 10/018,732

Examiner: Jenna Leigh BEFUMO

Filed: March 8, 2002

For: POLYLACTIC ACID RESIN, TEXTILE PRODUCTS OBTAINED THEREFROM
AND PROCESSES FOR PRODUCING TEXTILE PRODUCTS

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is submitted in response to a *Notice of Non-Compliant Amendment* mailed on April 6, 2006. As this response has been filed within the one-month period for response set forth by the *Notice*, no extension-of-time fees are believed to be necessary. However, in the event that extension of time is deemed necessary to render this response timely, the Commissioner for Patents is hereby authorized to charge Deposit Account No. 13-4500, Order No. 3620-4014 for the extension-of-time fee or any other fees that may be necessary.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 5 of this paper.

AMENDMENTS TO THE CLAIMS

The following claim listing supersedes all previous claim listings in this application.

1. (Cancelled)
2. (Cancelled).
3. (Cancelled).
4. (Cancelled).
5. (previously presented) A multifilament yarn comprising a linear polylactic acid with a relative viscosity η_{rel} of 2.7 to 3.9, an Sn content of 0 to 30 ppm, and a residual monomer content of 0 to 0.5% by weight, prepared from lactic acid monomers wherein at least 98 mol% of the lactic acid is an L-isomer, and wherein said yarn has a tensile strength of 3.9 cN/dtex or more and a contraction ratio in boiling water of 12% or less.
6. (currently amended) A multifilament yarn_comprising a linear polylactic acid with a weight average molecular weight Mw in the range of 120,000 to 220,000 and a number average molecular weight Mn in the range of 60,000 to 110,000, an Sn content of 0 to 30 ppm and a residual monomer content of 0 to 0.5% by weight, prepared from lactic acid monomers wherein at least 98 mol% of the lactic acid is an L-isomer, and wherein said yarn has a tensile strength of 3.9 cN/dtex or more and a contraction ratio in boiling water of 12% or less.

7. (previously presented) A multifilament yarn according to claim 5 having a birefringence, Δn , of 0.030 or more, and a thermal stress peak temperature of 85°C or more.
8. (previously presented) A polylactic acid multifilament yarn according to claim 5 having an inert content of 3.0% or less and a contraction ratio in boiling water of 12% or less.
9. (previously presented) A process for producing a polylactic acid multifilament yarn using a polylactic acid comprising a linear polylactic acid with a relative viscosity η_{rel} of in the range of 2.7 to 3.9, prepared from lactic acid monomers wherein at least 98 mol% of the lactic acid is an L-isomer, and wherein the resin contains 0 to 30 ppm of Sn and 0 to 0.5% by weight of residual monomer wherein the process steps comprise: spinning the resin at a speed in the range of 3,000 m/min to 5,000 m/min; drawing at a draw magnification factor 1.3 times or more at a temperature in the range of 100°C to 125°C; and heat-setting at a temperature in the range of 125°C to 150°C.
10. (previously presented) A process for producing a polylactic acid multifilament yarn using a polylactic acid comprising a linear polylactic acid with a weight average molecular weight M_w in the range of 120,000 to 220,000 and a number average molecular weight M_n in the range of 60,000 to 110,000, prepared from lactic acid monomers wherein at least 98 mol% of the lactic acid is an L-isomer, and wherein the resin contains 0 to 30 ppm of Sn and 0 to 0.5% by weight of monomer wherein the process steps comprise: spinning the resin at a speed in the range of 3,000 m/min 5,000 m/min; drawing at a draw magnification factor of 1.3 times or more at a temperature in the range of 100°C to 125°C; and heat-setting at a temperature in the range of 125°C to 150°C.

11. (previously presented) A process for producing polylactic acid multifilament yarn using the polylactic acid resin according to claim 5 wherein drawing is between a first heated roller (1) and a second heated roller (2) followed by heat-setting with the second heated roller (2).

Claims 12-75: (Cancelled).

76. (previously presented) A multifilament yarn comprising a linear polylactic acid with a relative viscosity η_{rel} of 2.7 to 3.9, an Sn content of 0 to 30 ppm and a residual monomer content of 0 to 0.5% by weight, prepared from lactic acid monomers wherein at least 98 mol% of the lactic acid is an L-isomer, and wherein said yarn has an inert content of 3.0% or less and a contraction ratio in boiling water of 12% or less.
77. (previously presented) A multifilament yarn comprising a linear polylactic acid with a weight average molecular weight M_w in the range of 120,000 to 220,000, a number average molecular weight M_n in the range of 60,000 to 110,000, an Sn content of 0 to 30 ppm and a residual monomer content of 0 to 0.5% by weight, prepared from lactic acid monomers wherein at least 98 mol% of the lactic acid is an L-isomer, and wherein said yarn has an inert content of 3.0% or less and a contraction ratio in boiling water of 12% or less.

REMARKS

In the prior paper filed on March 30, 2006, claim 6 was amended to correct a minor typographical error. Specifically, a space was added between the words "yarn" and "comprising". Accordingly, the status identifier for claim 6 was properly designated as "currently amended".

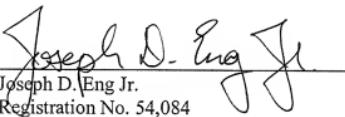
However, on April 6, 2006, the USPTO issued a Notice of Non-Compliant Amendment stating that claim 6 had an improper identifier. Applicants respectfully submit that the Notice was issued in error because the above referenced amendment had been made.

No new matter has been added by this amendment.

Respectfully submitted,
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Dated: April 17, 2006

By:


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